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DIALOG(R)File 351:DERWENT WPI  
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XRAM Acc No: C97-055128

XRPX Acc No: N97-141758

Semiconductor radiation detection element for radiation image measuring device - has insulated protection thin film that is formed in end face of compound semiconductor crystal by ECR plasma CVD method

Patent Assignee: SHIMADZU CORP (SHIMA )

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Main IPC	Week
JP 9036410	A	19970207	JP 95187469	A	19950724	H01L-031/09	199716 B

Priority Applications (No Type Date): JP 95187469 A 19950724

Patent Details:

Patent	Kind	Lat	Pg	Filing	Notes	Application	Patent
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JP 9036410	A	4
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Abstract (Basic): JP 9036410 A

The detection element has a parallelepiped like compound semiconductor crystal (1). A common electrode (2) is formed in one surface of the crystal. A set of individual electrodes (3) having a solder bump (4) are formed in other surface of the crystal.

An insulated protection thin film (6) like SiNx film is formed by the ECR plasma CVD method at the end face (5) of the compound semiconductor crystal where the electrodes are not formed.

USE/ADVANTAGE - For line sensor, surface sensor. Prevents penetration of Sn, Pb and flux in crystal during heat fusion of solder bump. Facilitates arrangement in 1D or 2D form. Prevents characteristic degradation by impurities.

Dwg.1/7

Title Terms: SEMICONDUCTOR; RADIATE; DETECT; ELEMENT; RADIATE; IMAGE;  
MEASURE; DEVICE; INSULATE; PROTECT; THIN; FILM; FORMING; END;  
FACE;  
COMPOUND; SEMICONDUCTOR; CRYSTAL; ECR; PLASMA; CVD; METHOD

Derwent Class: K08; L03; S03; S05; U12

International Patent Class (Main): H01L-031/09

International Patent Class (Additional): G01T-001/24

File Segment: CPI; EPI

Manual Codes (CPI/A-N): K08-X; K09-B; L04-E05

Manual Codes (EPI/S-X): S03-G02B2G; S05-D02A5B; U12-A02B3; U12-A03